



Great Salt Lake Water Quality Studies

Data Integration

1. Objectives
2. Proposed Methodology
3. Example spreadsheets



Great Salt Lake Water Quality Studies

Project 1A – Shorebirds

Project 1B1 – California Gulls

Project 1B2 – Overwintering Birds

Project 2A – Benthic Zone

Project 2B – Synoptic Survey

Project 3 – Se Loading

Project 4 – Se Flux

**Project 5 – Brine Shrimp Kinetics
Study**



Data Integration

Objectives

1. Integrate data from 8 reports
2. Define Se Pathways – Verify Simplified Conceptual Model
3. Quantify transfer factors from one trophic level to the next
4. Develop conceptual model into a working tool for decision support



Data Integration

Proposed Methodology

- 1. Perform Statistical Analysis to develop summary statistics by:**
 - Location and/or Area
 - Overall Great Salt Lake



Data Integration

Proposed Methodology

- 2.** Integrate findings across studies including analyses for spatial differences and pooling of data across studies as appropriate



Data Integration

Proposed Methodology

- 3.** Based on statistical distribution of data in each “compartment” of the model, select the appropriate measure of central tendency to represent the “compartment”



Data Integration

Proposed Methodology

- 4. Estimate the transfer factor for each pair of related compartments**



Data Integration

Proposed Methodology

- 5.** Estimate a reasonable range of predicted values for the higher trophic levels or “receiving compartments” in the model by varying the input terms or assumptions



Data Integration

Proposed Tools

Spreadsheet models

Biota Model

Abiotic Model